EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Pratt (reg. 45,794) on 4/21/2009.

The application has been amended as follows:

1. (Currently amended) A program product recorded on a recording medium, comprising:

a program linking program ~~recorded on a storage medium~~ for causing a computer having a memory to function ~~at least~~ as:

linking means for linking in advance a plurality of unlinked programs to form a ~~pre-linked~~ linked program ~~for advancing toward the completion of a linked program~~ prior to execution of a plurality of applications comprising the plurality of unlinked programs;

class calling relation detection means for detecting the plurality of unlinked programs called by each application prior to the linking;

storage means for storing the ~~pre-linked~~ linked program generated by the linking means in the memory before completion of the ~~linked program~~ linking; [[and,]]

link number detection means for estimating the frequency of use of the applications to which the unlinked programs are linked, sorting all the unlinked programs by the estimated frequency of use, and assigning indexed numbers in increasing order of the frequency of use; and

memory management means for causing the linking means to preferentially perform linking of the plurality of unlinked programs, to form the ~~pre-linked~~ linked program, in a

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predetermined priority order such that a cumulative sum of sizes of the unlinked programs is within a range in which overflow of a predetermined capacity of the memory does not occur,

wherein the predetermined priority order is [[an]] the increasing order, with the assigned index numbers, of frequency of use of the applications to which each of the plurality of unlinked programs is linked in the ~~plurality of~~ linked ~~programs~~ program.

10. (Currently amended) A program linking method comprising:

linking in advance a plurality of unlinked programs to form a ~~pre-linked~~ linked program ~~for advancing toward the completion of a linked program~~ prior to execution of a plurality of applications comprising the plurality of unlinked programs; and

detecting the plurality of unlinked programs called by each application prior to the linking;

storing ~~in a memory~~ the ~~pre-linked~~ linked program in a memory before completion of the ~~linked program~~ linking,

estimating the frequency of use of the applications to which the unlinked programs are linked, sorting all the unlinked programs by the estimated frequency of use, and assigning indexed numbers in increasing order of the frequency of use; and

~~wherein said~~

linking ~~is performed~~ preferentially, the unlinked programs to form the ~~pre-linked~~ linked program, in a predetermined priority order among the plurality of unlinked programs such that a cumulative sum of sizes of the unlinked programs is within a range in which overflow of a predetermined capacity of the memory does not occur, and

wherein the predetermined priority order is [[an]] the increasing order, with the assigned index numbers, of frequency of use of the applications to which each of the plurality of unlinked programs is linked in the ~~plurality of~~ linked ~~programs~~ program.

11. (Currently Amended) A program product recorded on a recording medium, comprising:

a program linking program ~~recorded on a storage medium~~ for causing a computer having a memory to function ~~at least~~ as:

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linking means for linking in advance a plurality of unlinked programs to form a ~~pre-linked~~ linked program ~~for advancing toward the completion of a linked program~~ prior to execution of a plurality of applications comprising the plurality of unlinked programs;

class calling relation detection means for detecting the plurality of unlinked programs called by each application prior to the linking;

storage means for storing the ~~pre-linked~~ linked program generated by the linking means in the memory before completion of the ~~linked program~~ linking; [[and]]

detection means for estimating the time required for linking at runtime, sorting all the unlinked programs by the estimated time, and assigning indexed numbers in decreasing order of time required for linking at runtime; and

memory management means for causing the linking means to preferentially perform linking of the plurality of unlinked programs, to form the ~~pre-linked~~ linked program, in a predetermined priority order such that a cumulative sum of sizes of the unlinked programs is within a range in which overflow of a predetermined capacity of the memory does not occur,

wherein the predetermined priority order is [[a]] the decreasing order, with the assigned index numbers, of time for linking of the applications to which each of the plurality of unlinked programs is linked in the linked program upon execution.

12. (Currently Amended) A program linking method comprising:

linking in advance a plurality of unlinked programs to form a ~~pre-linked~~ linked program ~~for advancing toward the completion of a linked program~~ prior to execution of a plurality of applications comprising the plurality of unlinked programs; and

detecting the plurality of unlinked programs called by each application prior to the linking;

storing the ~~pre-linked~~ linked program in a memory before completion of the ~~linked program~~ linking;

estimating the time required for linking at runtime, sorting all the unlinked programs by the estimated time, and assigning indexed numbers in decreasing order of time required for linking at runtime; and

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linking ~~is performed~~ preferentially, the plurality of unlinked programs to form the ~~pre-linked~~ linked program, in a predetermined priority order among the plurality of unlinked programs such that a cumulative sum of sizes of the unlinked programs is within a range in which overflow of a predetermined capacity of the memory does not occur, and

wherein the predetermined priority order is [[a]] the decreasing order, with the assigned index numbers, of time for linking of the applications to which each of the plurality of unlinked programs is linked in the linked program upon execution.

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Examiner's Statement of Reason(s) for Allowance

2. Claims 1-3 and 10-12 (renumbered as 1-6) are allowed.

3. The following is an examiner's statement of reason s for allowance:

The cited prior arts of record, taken alone or in combination, fail to teach or fairly suggest at least: Per claims 1, 10:

class calling relation detection means for detecting the plurality of unlinked programs called by each application prior to the linking; storage means for storing the linked program generated by the linking means in the memory before completion of the linking; link number detection means for estimating the frequency of use of the applications to which the unlinked programs are linked, sorting all the unlinked programs by the estimated frequency of use, and assigning indexed numbers in increasing order of the frequency of use…wherein the predetermined priority order is the increasing order, with the assigned index numbers, of frequency of use of the applications to which each of the plurality of unlinked programs is linked in the linked program

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Per claims 11 and 12

class calling relation detection means for detecting the plurality of unlinked programs called by each application prior to the linking; storage means for storing the linked program generated by the linking means in the memory before completion of the linking; detection means for estimating the time required for linking at runtime, sorting all the unlinked programs by the estimated time, and assigning indexed numbers in decreasing order of time required for linking at runtime…wherein the predetermined priority order is the decreasing order, with the assigned index numbers, of time for linking of the applications to which each of the plurality of unlinked programs is linked in the linked program upon execution.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-R 7:30-6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis A. Bullock, Jr. can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Insun Kang/
Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193